

We claim:

1. An animal feed composition comprising protein, carbohydrate, fat, and an ingredient bearing an electrostatic charge.

5           2. The composition of claim 1, said electrostatically charged ingredient comprising a member selected from the group consisting of electrostatically charged proteins, amino acids, conjugated proteins, dipeptides, multipeptides, protein colloids, enzymes, protein hydrolysates, natural and artificial food additives, flavorings, seasonings, and mixtures thereof.

10           3. The composition of claim 2, said electrostatically charged ingredient being selected from an electrostatically charged member of the group consisting of glycine, alanine, valine, phenylalanine, leucine, threonine, isoleucine, methionine, tyrosine, serine, cystine, cysteine, lipoproteins, glycoproteins, metalloproteins, nucleoproteins, phosphoproteins, anserine, carnosine, protein/latex colloids, protein/silica colloids, dipolar colloids, ribonuclease A,  
15 glutamate dehydrogenase, reduced glutathione, meat hydrolysates, collagen hydrolysates, gelatin hydrolysates, elastin hydrolysates, egg hydrolysates and mixtures thereof.

          4. The composition of claim 3, said composition comprising between about 0.01-64.0% by weight of said electrostatically charged ingredient.

20           5. The composition of claim 2, said composition comprising between about 0.01-20.0% by weight of said electrostatically charged ingredient, said electrostatically charged ingredient being selected from an electrostatically charged member of the group consisting of aspartic acid, glutamic acid, proline, lysine, arginine, histidine, hydroxy-proline and mixtures  
25 thereof.

          6. The composition of claim 1, said composition being in the form of a self-sustaining extruded body presenting an outer surface.

30           7. The composition of claim 6, said outer surface being at least partially coated with said electrostatically charged ingredient.

8. The composition of claim 1, said composition comprising a coating, wherein said coating comprises from about 0.001-50.0% by weight of electrostatically charged ingredient based on the weight of the entire coated composition.

5

9. The composition of claim 1, said composition comprising at least one additional component selected from the group consisting of animal bile acid, fungal acid protease, papain, and mixtures thereof.

10

10. The composition of claim 9, said composition comprising from about 0.001-15% by weight of said additional component.

11. The composition of claim 1, said electrostatically charged ingredient bearing a negative charge.

15

12. An animal feed composition comprising:

from about 15-50% by weight protein;

from about 20-70% by weight carbohydrate;

from about 1-30% by weight fat; and

20

from about 0.01-64.0% by weight of an ingredient bearing an electrostatic charge.

13. The composition of claim 12, said composition comprising from about 25.0-45.0% by weight protein, from about 25.0-55.0% by weight carbohydrate, and from about 5.0-25.0% by weight fat.

25

14. The composition of claim 12, said electrostatically charged ingredient bearing a negative charge.

30

15. The composition of claim 12, said electrostatically charged ingredient comprising a member selected from the group consisting of electrostatically charged proteins, amino acids, conjugated proteins, dipeptides, multi-peptides, protein colloids, enzymes, protein  
5 hydrolysates, natural and artificial food additives, flavorings, seasonings, and mixtures thereof.

16. The composition of claim 15, said electrostatically charged ingredient being selected from an electrostatically charged member of the group consisting of glycine, alanine, valine, phenylalanine, leucine, threonine, isoleucine, methionine, tyrosine, serine, cystine,  
10 cysteine, lipoproteins, glycoproteins, metalloproteins, nucleoproteins, phosphoproteins, anserine, carnosine, protein/latex colloids, protein/silica colloids, dipolar colloids, ribonuclease A, glutamate dehydrogenase, reduced glutathione, meat hydrolysates, collagen hydrolysates, gelatin hydrolysates, elastin hydrolysates, egg hydrolysates and mixtures thereof.

17. The composition of claim 15, said composition comprising between about 0.01-20.0% by weight of said electrostatically charged ingredient, said electrostatically charged ingredient being selected from an electrostatically charged member of the group consisting of aspartic acid, glutamic acid, proline, lysine, arginine, histidine, hydroxy-proline and mixtures  
15 thereof.

18. The composition of claim 12, said composition being in the form of a self-sustaining extruded body presenting an outer surface.  
20

19. The composition of claim 18, said outer surface being at least partially  
25 coated with said electrostatically charged ingredient.

20. The composition of claim 12, said composition comprising at least one additional component selected from the group consisting of animal bile acid, fungal acid protease, papain, and mixtures thereof.  
30

21. A method of feeding an animal comprising the steps of:  
providing a composition comprising protein, carbohydrate, fat, and an ingredient bearing  
an electrostatic charge; and  
feeding said composition to said animal.

5

22. The method of claim 21, said electrostatically charged ingredient bearing  
a negative charge.

23. The method of claim 21, said composition further comprising at least one  
10 additional component selected from the group consisting of animal bile acid, fungal acid  
protease, papain, and mixtures thereof.

24. The method of claim 23, said composition comprising from about 0.001-  
15.0% by weight of said additional component.

15

25. The method of claim 21, said method comprising feeding said composition  
to a cat.

26. The method of claim 21, said electrostatically charged ingredient  
20 comprising a member selected from the group consisting of electrostatically charged proteins,  
amino acids, conjugated proteins, dipeptides, multi-peptides, protein colloids, enzymes, protein  
hydrolysates, natural and artificial food additives, flavorings, seasonings, and mixtures thereof.

27. The method of claim 26, said electrostatically charged ingredient being  
25 selected from an electrostatically charged member of the group consisting of glycine, alanine,  
valine, phenylalanine, leucine, threonine, isoleucine, methionine, tyrosine, serine, cystine,  
cysteine, lipoproteins, glycoproteins, metalloproteins, nucleoproteins, phosphoproteins, anserine,  
carnosine, protein/latex colloids, protein/silica colloids, dipolar colloids, ribonuclease A,  
glutamate dehydrogenase, reduced glutathione, meat hydrolysates, collagen hydrolysates,  
30 gelatin hydrolysates, elastin hydrolysates, egg hydrolysates and mixtures thereof.

28. The method of claim 27, said composition comprising between about 0.01-64.0% by weight of said electrostatically charged ingredient.

29. The method of claim 26, said composition comprising between about 0.01-20.0% by weight of said electrostatically charged ingredient, said electrostatically charged ingredient being selected from an electrostatically charged member of the group consisting of aspartic acid, glutamic acid, proline, lysine, arginine, histidine, hydroxy-proline and mixtures thereof.

30. The method of claim 21, said composition comprising from about 15-50% by weight protein, from about 20-70% by weight carbohydrate, from about 1-30% by weight fat, and from about 0.01-64.0% by weight of said electrostatically charged ingredient.